

Waste Management, Inc. – Tekoi Landfill
Full Compliance Evaluation (FCE)
Off-Site Inspection

Inspection Date: September 27, 2018

Inspection Report Date: October 18, 2018

EPA Representatives: Sara Loiacono, Environmental Scientist, US EPA Region 8 *SL*

Tribal Representatives: N/A

Company Representatives: Doc Nyiro, Environmental Protection Manager, Waste Management

Inspection Report Prepared By: Sara Loiacono, Environmental Scientist, US EPA Region 8

Inspection Report Reviewed By: Scott Patefield, Director, Air & Toxics Technical Enforcement
US EPA Region 8 *[Signature]*

Last Inspection: September 14, 2016

Operating Status: Operating

Applicable Requirements: Title V; 40 CFR Part 60 New Source Performance Standards, Subpart WWW (NSPS WWW) and Subpart JJJJ (NSPS JJJJ); 40 CFR Part 63 National Emissions Standards for Hazardous Pollutants, Subpart AAAA (MACT AAAA) and Subpart ZZZZ (MACT ZZZZ)

Permit Number: V-SV-000001-2016.00
Replaces Permit No.: V-SV-000001-2010.00

Issue Date: November 14, 2016
Effective Date: December 14, 2016
Expiration Date: December 14, 2021

Facility Information and Emission Unit Identification

Parent Company Name: Waste Management of Utah, Inc.
Mailing Address: 6976 West California Avenue, Salt Lake City, Utah 84104
Facility Contact: Doc Nyiro, Environmental Protection Manager, Waste Management
(303) 486-6034

Facility Operator & Name: Tekoi Landfill
Facility Location: Latitude 40.358323 N, Longitude -112.724416 W
Section 26, Township 5, Range 8 West

County, State: Tooele, Utah
Reservation: Skull Valley Band of Goshute Indian Community
Tribe: Skull Valley Band of Goshute Indians
Responsible Official: Damon De Frates, Area Director of Disposal Operations
SIC Code: 4953 – Refuse Systems
AFS ID: 49-045-00088
Other CAA Permits: There are no other CAA permits for this facility.

Enforcement History

None in the past five years.

Inspection Findings/Areas of Concern

Based on the information reviewed to date, EPA has noted no areas of concern at this time. However, it should be noted that this inspection report is not a final determination of compliance.

Compliance Assistance

No compliance assistance was provided as a result of this full compliance evaluation.

Description of Operations

The Tekoi Landfill, which is owned by the Skull Valley Band of Goshute Indian Community and operated by CR Group, LLC (CR), serves as a regional municipal solid waste (MSW) and construction and demolition (C&D) debris disposal facility.

No hazardous wastes or infectious wastes are accepted for disposal, nor is the incineration of waste permitted. At the time of its permit application, the Tekoi Landfill accepted approximately 750 tons of waste per day (tpd); however, it is permitted to accept a maximum of 4,000 tpd.

Tekoi Landfill is comprised of a 6-phase MSW disposal area, as well as two C&D disposal areas. The MSW portion of the landfill was operated as a balefill landfill until November 2010. A balefill is a type of landfill in which MSW is mechanically baled before being placed in the MSW disposal area. The bales were approximately 45" x 45" x 60" and weighed approximately 4,000 pounds. Tekoi Landfill has not conducted balefill operations for several years and does not expect to resume such operation in the future. Therefore, CR has requested that any reference to such operation be removed from the Title V Permit. The site now accepts only loose (unbaled) MSW. The method of disposal has no effect on landfill emissions.

General Inspection Observations and Commentary

In an email on September 27, 2018, Ms. Loiacono informed Mr. David Thorley and Mr. Doc Nyiro of Waste Management that EPA was conducting an off-site full compliance evaluation of the Tekoi Landfill. In the email, Ms. Loiacono requested information and documentation related to compliance with the facility's Title V permit and other applicable regulations (i.e. NSPS WWW, MACT AAAA, MACT ZZZZ, NSPS JJJJ). Ms. Loiacono informed Mr. Thorley & Mr. Nyiro that additional information and/or documentation may be requested as a follow-up, if necessary.

Potential to Emit (PTE)

Pursuant to 40 CFR §52.21, potential to emit (PTE) is defined as the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation, or the effect it would have on emissions, is federally enforceable.

The Tekoi Landfill does not currently have a gas collection and control system (GCCS) for landfill gas (LFG) emissions. Under the New Source Performance Standards (NSPS) for MSW Landfills at 40 CFR, Part 60, subpart WWW (NSPS WWW), landfill owners/operators are required to install a GCCS when the landfill design capacity is greater than 2.5 million megagrams (Mg) by mass or 2.5 million cubic meters by volume (MMm³v) and the NMOC emission rate is greater than 50 Mg per year (Mg/yr). Tekoi Landfill has a design capacity of approximately 45 MMm³v for MSW disposal. As required by NSPS WWW, an initial design capacity report was submitted to the EPA on March 31, 2008, and an NMOC emission rate for the landfill was calculated using the procedures specified in 40 CFR §60.754. The calculated annual NMOC emission rate was

determined using the EPA's Landfill Gas Emissions Model (*LandGEM [Version 3.02]*). The annual rate was projected to exceed 50 Mg/yr, triggering the additional requirements specified in 40 CFR 60.752(b)(2) as of March 10, 2008, the date the annual rate report was submitted.

Tier 2 field sampling activities, as allowed under NSPS WWW, were initially conducted in June 2008. The report concluded the estimated annual NMOC emission rate would exceed 50 Mg/yr in 2009. Subsequent Tier 2 testing was been conducted at the site in 2013. The results were submitted to the EPA in a January 2014 report. The Tier 2 NMOC concentration of 965 parts per million by volume (ppmv) of hexane was used to calculate annual NMOC emission rates, which were determined to be less than 50 Mg/yr for the 5-year period from 2013 through 2017. This Tier 2 NMOC concentration value was used in the Title V permit application for emission calculations. Per NSPS WWW, this Tier 2 concentration is valid for up to 5 years; as such, additional Tier 2 testing was required in 2018. Results of the 2018 Tier 2 testing are discussed in Section II.B. of this inspection report.

See Table 1, below, for facility-wide and emission unit-specific potential to emit data for the Tekoi Landfill based on information reported by Waste Management in its Part 71 permit application.

Table 1: Tekoi Landfill Potential to Emit in Tons Per Year (tpy)

Emission Unit ID	Regulated Air Pollutants (tpy)							
	NO _x	CO	VOC	PM	SO ₂	Total HAP	NMOC	CH ₄ (as CO _{2e})
E1	0	0	94.1	0	0	4.9	241.4	106,177
E2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0
E3	3.11	0.38	0.17	0.23	0.53	-	-	-
TOTAL	3.11	0.38	94.27	0.23	0.53	4.9	241.1	106,177

NO_x = oxides of nitrogen; CO = carbon monoxide; VOC = volatile organic compounds; PM = particulate matter; SO₂ = sulfur dioxide; HAP = hazardous air pollutants; NMOC = nonmethane organic compounds; CH₄ = methane; CO_{2e} = equivalent carbon dioxide (CO₂)

Permit Number V-UO-000001-2016.00 Requirements and Compliance Status

Inspector notes discussing compliance status will follow each relevant permit requirement in **bold blue** font.

I. Facility Emission Points and Unit-Specific Information**Table 2: Source Emission Points**

Emission Unit ID	Description	Control Equipment
E1	MSW Landfill MSW and C&D Debris Disposal	None
E2	Fugitive Dust Emissions from Paved and Unpaved Roads, and Material Handling	None
E3	John Deere 6.8L, 165 hp ^a diesel-fired stationary compression ignition engine Constructed: Pre-June 12, 2006 Manufactured: 2002 Use: ~ 3,120 hrs/yr; non-emergency generator to power lights	None
Insignificant Emission Units		
IE1	Isuzu 89 hp diesel-fired stationary compression ignition engine Constructed: Pre-June 12, 2006 Manufactured: 2000 Use: ~ 715 hrs/yr; non-emergency generator to power fuel pump	None
IE3	Honda 13 hp gas-powered spark ignition engine Constructed: January 2016 Manufactured: 2014 Use: ~ 650 hrs/yr; non-emergency water pump	None
IE4	1 – 12,000-gallon diesel fuel tank	None

^a hp = horsepower

^b Insignificant emission units can change at the facility as long as the new or replacement units meet the criteria for insignificance, and Tekoi Landfill supplies information as required under 40 CFR Part 71 and this permit. The insignificant unit status does not exempt these emission units from the requirements of the NSPS and MACT standards that may apply.

Table 3: Requirements for Emission Units

Equipment	Applicable Requirements	Limitations	Monitoring	
			Method	Interval
E1 MSW Landfill	NSPS WWW MACT AAAA	No emissions limitations. GCCS not currently required but NMOC emission rate must be recalculated annually.	Calculations	Annual
IE1 E3	MACT ZZZZ	No emissions limitations. Subject to the maintenance requirements in MACT ZZZZ Table 2d #1.	N/A	N/A
IE3	MACT ZZZZ NSPS JJJJ	Complies with MACT ZZZZ by complying with NSPS JJJJ. Must be manufacturer certified to meet the emission standards for new nonroad SI engines in 40 CFR Part 90 or 1054.	N/A	N/A

II. Standards of Performance for Municipal Solid Waste Landfills (NSPS WWW)

A. 40 CFR Part 60, Subpart WWW - Standards

1. This facility is subject to the requirements of 40 CFR part 60, subpart WWW. Notwithstanding conditions in this permit, the Permittee shall comply with all applicable requirements of 40 CFR part 60, subpart WWW.
2. 40 CFR 60, subpart WWW applies as follows:
 - (a) §60.750(a) - This facility is a MSW landfill that was constructed, reconstructed or modified on or after May 30, 1991; and
 - (b) §60.752(b) – This facility has a design capacity greater than 2.5 million megagrams.

[40 CFR §60.750 - 60.759]

OBSERVATION: According to the initial design capacity report from March 2008, the design capacity of the Tekoi Landfill is 58,816,200 yd³ (44,968,211 m³).

B. Standards for Air Emissions

1. The Permittee shall calculate a non-methane organic compound (NMOC) emission rate for the landfill using the procedure and default values specified in §60.754(a)(1).

[40 CFR §60.752(b)]
2. **Tier 1:** The Permittee shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year as required by §60.754(a)(2).
 - (b) If the calculated NMOC emission rate using the default values of §60.754(a)(1) is equal to or greater than 50 megagrams per year using Tier 1, the Permittee shall either:
 - (i) Comply with §60.752(b)(2) as follows:
 - (A) Submit a collection and control system design plan prepared by a professional engineer within 1 year;
 - (B) Install a collection and control system, as specified in §60.752(b)(2)(ii)(A) or (B) and §60.752(b)(2)(iii), within 30 months after the first annual report in which the rate equals or exceeds 50 megagrams per year; and
 - (C) Comply with the specifications for active collection systems as specified in §60.759.
 - or
 - (ii) Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in paragraph §60.754(a)(3) and identified as Tier 2.

[40 CFR §60.752(b)(2) and 40 CFR §60.754(a)(1)(ii)]

OBSERVATION: The Tekoi Landfill has chosen to use Tier 2 procedures to determine a site-specific NMOC concentration and calculate the facility's NMOC emission rate. Results of the most

recent Tier 2 testing at the facility indicate that the NMOC mass emission rate is less than 50 megagrams per year (Mg/yr). See the subsequent observation for details.

3. **Tier 2:** The Permittee shall calculate a site-specific NMOC concentration as required by §60.754(a)(3) and recalculate the NMOC mass emission rate using the equations provided in §60.754(a)(1) using the average NMOC concentration from the collected samples instead of the default value in the equation in §60.754(a)(1).

(a) If the resulting NMOC mass emission rate is less than 50 megagrams per year using Tier 2, the Permittee shall:

- (i) Submit a periodic estimate of the emission rate report as provided in §60.757(b)(1); and
- (ii) Retest the site-specific NMOC concentration every 5 years using Tier 2.

[40 CFR §60.754(a)(3)(i)]

OBSERVATION: A Tier 2 Sampling Report for the Tekoi Landfill was submitted to EPA in April 2018, which indicated that the site-specific NMOC concentration for the landfill was 390 parts per million by volume (ppmv) as hexane. Using this site-specific NMOC concentration and a projected waste acceptance rate of 181,818 Mg/yr (200,000 tpy)¹, the NMOC emission rate was projected to be 18 Mg/yr in 2018 and 23 Mg/yr in 2022; the 50 Mg/yr threshold was not projected to be exceeded until 2050.

Upon reviewing the April 2018 report, Ms. Loiacono noted that several of the landfill gas samples used in the Tier 2 testing were not corrected for nitrogen as prescribed by EPA Method 25C. Instead, the samples were corrected for oxygen, which, per Method 25C, is only allowed when the nitrogen correction is not possible (i.e. the N₂ concentration of the sample is greater than 20% and the O₂ concentration is less than 5%). Ms. Loiacono indicated this to Mr. David Thorley of Waste Management and Mr. Garth Bowers of Cornerstone Environmental Group, LLC (Cornerstone) in a series of email and telephone correspondences in May and June of 2018. As a result of these conversations, Cornerstone, on behalf of Waste Management, updated the Tier 2 calculations for the Tekoi Landfill. An updated Tier 2 Sampling Report was received by EPA on October 4, 2018.

The updated Tier 2 Sampling Report indicated a site-specific NMOC concentration of 410 ppmv as hexane. Using this site-specific NMOC concentration and a projected waste acceptance rate of 181,818 Mg/yr (200,000 tpy), the NMOC emission rate was projected to be 19 Mg/yr in 2018 and 24 Mg/yr in 2022; the 50 Mg/yr threshold was not projected to be exceeded until 2047.

4. **Tier 3:** The Permittee shall determine the site-specific methane generation rate constant as required by §60.754(a)(4) and recalculate the NMOC mass emission rate using the site-specific methane generation rate constant, the NMOC concentration previously determined by Tier 2, and the equations provided in §60.754(a)(1).

OBSERVATION: The NMOC mass emission rate determined using Tier 2 was less than 50 Mg/yr; therefore, Tier 3 testing was not conducted.

¹ According to the historical waste acceptance rates provided in the 2018 Tier 2 Sampling Reports, the average waste acceptance rate from 2005 – 2017 was 168,018 Mg/yr (184,820 tpy). Annual waste acceptance rates were greater than 181,818 Mg/yr (200,000 tpy) in 2006, 2007, 2008, and 2014.

C. Compliance Provisions [40 CFR §60.755]

The specified methods in §60.755(a)(1) - (a)(6) shall be used to determine whether the gas collection and control system is in compliance with §60.752(b)(2)(ii).

OBSERVATION: No gas collection and control system is required or installed at the Tekoi Landfill, therefore, the compliance provisions at §60.755(a)(1) - (a)(6) and §60.752(b)(2)(ii) do not apply.

D. Monitoring of Operations [40 CFR §60.756]

The requirements of §60.756(a) - (f) shall be used to monitor the capture and control system requirements of §60.752(b)(2).

OBSERVATION: Since no GCCS is installed at the Tekoi Landfill, the monitoring requirements at §60.756(a) - (f) do not apply.

E. Reporting Requirements [40 CFR §60.757]

If the NMOC emission rate equals or exceeds 50 megagrams per year, the Permittee shall meet the applicable reporting requirements of §60.757(a) - (g).

OBSERVATION: The initial design capacity report required by §60.757(a) was submitted for the Tekoi Landfill on March 31, 2008. Per §60.757(b)(1)(ii), if the NMOC emission rate reported is less than 50 Mg/yr in each of the next five consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next five-year period in lieu of the annual report. In January 2014, a five-year NMOC emission rate report was submitted for the Tekoi Landfill, which used the site-specific NMOC concentration from the 2013 Tier 2 sampling. This report indicated that the 50 Mg/yr NMOC emission rate threshold would be exceeded by 2019. An NMOC emission rate report was also included in the 2018 Tier 2 Sampling Report, which contained NMOC emission estimates through 2022. According to the most recent report, the NMOC emission rate is projected to exceed 50 Mg/yr by 2047. Since no GCCS is installed at the Tekoi Landfill, the other provisions of §60.757 do not apply.

F. Recordkeeping Requirements [40 CFR §60.758]

The Permittee shall meet the applicable recordkeeping requirements of §60.758(a) - (f).

OBSERVATION: §60.758(a) requires each owner or operator to keep a copy of the design capacity report which triggered §60.752(b), records of the current waste-in-place, and records of the yearly waste acceptance rate. A copy of the design capacity report was provided to EPA by Mr. Nyiro upon request. Annual waste acceptance rates for 2005 – 2017 were included in the most recent NMOC emission rate report, and per an email from Mr. Nyiro on October 16, 2018, the waste-in-place through September 2018 was 2,458,103 tons, which included 2,402,662 tons received through 2017 and an additional 55,441 tons received from January through September 2018. Since no GCCS is installed at the landfill, the recordkeeping requirements at §60.758(b) - (e) do not apply. Since the design capacity of the landfill is greater than 2.5 million megagrams or 2.5 million cubic meters, the requirements at §60.758(f) do not apply.

III. 40 CFR Part 63, Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste (MSW) Landfills (MACT AAAA)

A. 40 CFR 63, Subpart AAAA - Standards

1. This facility is subject to the requirements of 40 CFR part 63, subpart AAAA. Notwithstanding conditions in this permit, the Permittee shall comply with all applicable requirements of 40 CFR part 63, subpart AAAA.
 - (a) 40 CFR 63, subpart AAAA applies as follows: §63.1935(a) - This facility is a MSW landfill that has accepted waste since November 8, 1987 or has additional capacity for waste deposition; and
 - (b) §63.1935(a)(3) – This facility has a design capacity greater than 2.5 million megagrams and is an area source MSW landfill.

[40 CFR §63.1930 – §63.1990]

B. Non-Methane Organic Compound Emission Rate < 50 Mg/year

If the uncontrolled NMOC emission rate is less than 50 megagrams per year, as calculated according to §60.754(a) of the MSW landfills NSPS in 40 CFR part 60, subpart WWW, the Permittee shall recalculate the NMOC emission rate annually as specified in 40 CFR 60.752(b)(1) using the procedures specified in 40 CFR 60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.

[40 CFR §63.1935(a)(3)]

OBSERVATION: According to the most recent Tier 2 testing conducted for Tekoi Landfill, the 2018 NMOC emission rate is calculated to be 19 Mg/yr. NMOC emission rate reports appear to have been submitted as required by NSPS WWW. See Section II.E., above.

C. Non-Methane Organic Compound Emission Rate ≥ 50 Mg/year

If the uncontrolled NMOC emission rate is equal to or greater than 50 megagrams per year, as calculated according to §60.754(a) of the MSW landfills NSPS in 40 CFR part 60, subpart WWW, the Permittee shall comply with 40 CFR part 63, subpart AAAA by meeting the standards, monitoring, recordkeeping and reporting requirements as specified in 40 CFR part 60, subpart WWW in addition to the following standards, monitoring, recordkeeping and reporting requirements that apply to the facility.

[40 CFR §63.1935(a)(3)]

OBSERVATION: Since the current NMOC emission rate for the Tekoi Landfill is less than 50 Mg/yr, these requirements do not apply.

1. Standards for Air Emissions

- (a) The Permittee shall comply with the requirements of 40 CFR part 60, subpart WWW.

[40 CFR §63.1955(a)]
- (b) If the Permittee is required by 40 CFR 60.752(b)(2) of 40 CFR part 60, subpart WWW to install a collection and control system, the Permittee must comply with the requirements in §§63.1960 through 63.1985, and with the general provisions as specified in Table 1 of 40 CFR part 63, subpart AAAA.

[40 CFR §63.1955(b)]

- (c) For approval of collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, the Permittee must follow the procedures in 40 CFR 60.752(b)(2). If alternatives have already been approved under 40 CFR part 60, subpart WWW, these alternatives can be used to comply with 40 CFR 63, subpart AAAA, except as specified in 63.1955(c).
[40 CFR §63.1955(c)]

OBSERVATION: No GCCS is installed at the Tekoi Landfill so the requirements of this section do not apply.

2. Compliance Provisions [40 CFR §63.1960]

Compliance shall be determined by the requirements of §63.1960. This includes performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected under subpart WWW, are used to demonstrate compliance with the operating conditions for control systems. Finally, the Permittee must develop a written startup, shutdown, and malfunction (SSM) plan according to the provisions in 40 CFR §63.6(e)(3). A copy of the SSM plan must be maintained on site.

OBSERVATION: Based on its current calculated NMOC emission rate, no GCCS is required to be installed at the Tekoi Landfill. Therefore, the requirements of §63.1960 do not apply.

3. Monitoring and Testing [40 CFR §63.1980(g)]

If the Permittee adds any liquids other than leachate in a controlled fashion to the waste mass and does not comply with the bioreactor requirements in §§63.1947, 63.1955(c) and 63.1980(c) through (f) of 40 CFR part 63, subpart AAAA, the Permittee must keep a record of calculations as specified in §63.1980(g).

OBSERVATION: The Tekoi Landfill is not a bioreactor as defined at §63.1990; therefore, the requirements at 40 CFR §63.1980(g) do not apply.

4. Recordkeeping and Reporting Requirements

- (a) The Permittee must comply with the recordkeeping requirements as specified in §60.758(a) of 40 CFR part 60, subpart WWW, except that the annual report described in 40 CFR §60.757(f) must be submitted every 6 months.

[40 CFR §63.1980(a)]

OBSERVATION: The Tekoi Landfill does not use an active collection system, so the annual report described in 40 CFR §60.757(f) and reporting frequency required by §63.1980(a) is not required.

- (b) The Permittee must keep records and reports as specified in the general provisions of 40 CFR part 60 and in Table 1 of 40 CFR part 63, subpart AAAA. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports.

[40 CFR §63.1980(b)]

OBSERVATION: Since no GCCS is installed at the Tekoi Landfill, no SSM plans or SSM plan reports are required.

IV. 40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants from Reciprocating Internal Combustion Engines

A. Applicability

40 CFR part 63, subpart ZZZZ applies to the following emission units:

1. Isuzu engine identified as IE1 in Table 3 of this permit;
2. John Deere engine identified as E3 in Table 2 of this permit;
3. Honda engine identified as IE3 in Table 3 of this permit.

[40 CFR §§63.6585 - 63.6590]

OBSERVATION: Engine IE1 is an 89 hp, diesel-fired, non-emergency, non-black start CI stationary RICE and Engine E3 is a 165 hp, diesel-fired, non-emergency, non-black start CI stationary RICE. Both IE1 and E3 were constructed prior to June 12, 2006 so are considered existing stationary RICE under MACT ZZZZ. Engine IE3 is a 13 hp, gas-powered SI engine that was constructed in January 2016. Under MACT ZZZZ, Engine IE3 is considered a new stationary RICE located at an area source.

B. Requirements for Engine IE3

1. The Permittee must meet the requirements of 40 CFR part 63, subpart ZZZZ by meeting the requirements of 40 CFR part 60, subpart JJJJ, for stationary SI engines. No further requirements apply to engine unit IE3 under 40 CFR part 63.
2. Pursuant to 40 CFR part 60, subpart JJJJ, this engine is subject to 40 CFR part 60, subpart JJJJ, as it was manufactured after July 1, 2008. As such, there are additional requirements outlined in this permit that apply to this engine.

[40 CFR §63.6590(c)]

[40 CFR §60.4230(a)(1)]

OBSERVATION: Since Engine IE3 is considered a new stationary RICE located at an area source, per §63.6590(c)(1), it complies with MACT ZZZZ by complying with NSPS JJJJ. See Section V, below, for a discussion of NSPS JJJJ requirements for engine IE3.

C. Requirements for Engines IE1 and E3

1. Emission and Operating Limitations

- a. Except during periods of startup, the Permittee shall:
 - i. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;
 - ii. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
 - iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- b. During periods of startup the Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

[40 CFR §63.6603(a) and Table 2d: 1(a)-(c)]

OBSERVATION: EPA requested maintenance records for engines IE1 and E3 for September 2016 through September 2018. According to the records provided by Mr. Nyiro, inspections were conducted on the engines as described in Table 4, below.

Table 4: Maintenance Conducted on Engines IE1 and E3

Engine Unit ID	Serial Number	Date of Inspection	Engine Meter Reading (hrs)	Oil & Filter Change	Inspect Air Cleaner	Inspect Hoses & Belts
IE1	7202621	July 31, 2017	15,801	✓	✓	✓
IE1	7202621	December 14, 2017	15,814	✓	✓	✓
IE1	7202621	August 6, 2018	15,842	✓	✓	✓
E3	7500896	October 10, 2016	10,457	✓	✓	✓
E3	7500896	March 20, 2017	10,963	✓	✓	✓
E3	7500896	December 18, 2017	11,463	✓	✓	✓
E3	7500896	May 29, 2018	11,547	✓	✓	✓

2. Testing and Initial Compliance Requirements

The Permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide, to the extent practicable, for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions.

[40 CFR §63.6625(e)(4) and Table 6: 9(a)(i)-(ii)]

OBSERVATION: Engines IE1 and E3 comply with §63.6625(e) by using a site-specific maintenance plan. A copy of this plan was provided to EPA by Mr. Nyiro on October 9, 2018.

3. Continuous Compliance Requirements

- a. The Permittee must be in compliance with the emission limitations, operating limitations, and other requirements which apply, at all times.

[40 CFR §63.6605(a)]

- b. The Permittee must operate and maintain the engines, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions, at all times.

[40 CFR §63.6605(b)]

- c. The Permittee must demonstrate continuous compliance with each emission limitation, operating limitation and other requirements that apply.

[40 CFR §63.6640 (a)]

OBSERVATION: Per Table 2d (#1) to MACT ZZZZ, no emission limitations apply to non-emergency, non-black start CI stationary RICE ≤ 300 hp. Except during periods of startup, engines IE1 and E3 must comply with the maintenance requirements described in Section IV.C.1., above, but no other continuous compliance requirements appear to apply.

4. Notifications, Reports, and Records

- a. The Permittee must submit notifications as specified in §63.6645.
- b. The Permittee must submit reports as specified in §63.6650.
- c. The Permittee must keep records as specified in §63.6655.
- d. The Permittee must keep the records in the format and for the duration as specified in §63.6660.
[40 CFR §63.6645, §63.6650, §63.6655, §63.6660]

OBSERVATION: Per §63.6645(a)(2) and §63.9(b), an initial notification was required to be submitted; however, the initial notification was due prior to the time period covered by this full compliance evaluation. Per §63.6650 and Table 7 of MACT ZZZZ, there do not appear to be any reporting requirements for existing non-emergency non-black start CI stationary RICE ≤ 300 hp located at an area source of HAP. As specified in §63.6655 and §63.6656, records of an initial notification, any malfunctions, performance tests, and maintenance on air pollution control devices and monitoring equipment are required to be kept for five years from the date of occurrence. No malfunctions have been reported on semi-annual or annual compliance reports for Tekoi Landfill, and, since no air pollution control devices are installed on the engines at the landfill, no records of performance tests or maintenance on control devices or monitoring equipment would be required.

V. 40 CFR Part 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

A. Applicability

40 CFR part 60, subpart JJJJ applies to the following engines:

1. Honda engine identified as IE3 in Table 3 of this permit.

[40 CFR §60.4230]

OBSERVATION: Engine IE3 is a 13 hp, gas-powered, non-emergency SI engine that was manufactured after July 1, 2008 and commenced construction after June 12, 2006; therefore, it is subject to NSPS JJJJ per §60.4230(a)(4)(iii).

B. Emission Standards for Owners and Operators

The Permittee, as an owner or operator of a 2014 model year non-emergency SI ICE must comply with the emission standards set in 40 CFR §60.4231(a).

[40 CFR §60.4233(a)]

OBSERVATION: According to the manufacturer's information, engine IE3 has an engine displacement ≥ 225 cubic centimeters (cc). Per §60.4231(a), since engine IE3 has a maximum engine power ≤ 19 kW (25 hp) and was manufactured after January 1, 2011, it must be certified by the manufacturer to meet the emission standards and other requirements for new nonroad SI engines in 40 CFR 1054. On October 9, 2018, Mr. Nyiro submitted to EPA a copy of the certification for engine IE3, which indicates that the engine is designed to meet the relevant emission standards at 40 CFR 1054.

C. Compliance Requirements for Owners and Operators

- a. The Permittee, as the owner or operator of the SI ICE, must
- i. Comply with the emission standards;
 - ii. Operate and maintain the stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
 - iii. Only change those settings that are permitted by the manufacturer; and
 - iv. Meet the requirements of 40 CFR parts 90 or 1054, as they apply.

[40 CFR §60.4243]

OBSERVATION: According to correspondence from Mr. Nyiro to Laurie Ostrand of EPA as part of the 2016 inspection of the Tekoi Landfill, site personnel follow the manufacturer's instructions on operating and maintaining engine IE3.

VI. Facility-Wide Requirements [40 CFR §71.6(a)(1)]

A. Recordkeeping Requirements [40 CFR §71.6(a)(3)(ii)]

2. Records shall be kept of off permit changes, as required by the Off-Permit Changes section of this permit.

OBSERVATION: Per Mr. Nyiro, no off-permit changes have taken place at the facility.

B. Reporting Requirements [40 CFR §71.6(a)(3)(iii)]

1. The Permittee shall submit to the EPA all reports of any required monitoring under this permit semiannually. The first report shall cover the period from the effective date of this permit through December 31st, 2016. Thereafter, the report shall be submitted semi-annually, by April 1st and October 1st of each year. The report due on April 1st shall cover the 6-month period ending on the last day of December before the report is due. The report due on October 1st shall cover the 6-month period ending on the last day of June before the report is due. All instances of deviations from permit requirements shall be clearly identified in such reports. All required reports shall be certified by a responsible official consistent with the Submissions section of this permit.

OBSERVATION: Semi-annual reports submitted to EPA for the Tekoi Landfill since the previous full compliance evaluation are detailed in Table 5, p. 14.

Table 5: Facility-Wide Semi-Annual Emissions (SIXMON) Reports

Reporting Period	Report Date	Report Rcvd	Report Type	Notes
9/1/2016 – 12/13/2016	3/31/17	4/3/17	Semi-Annual	<ul style="list-style-type: none"> Engine IE3 was replaced by a similar-sized gasoline SI engine in August 2015. (Original engine was a compression engine.) Engine is subject to MACT ZZZZ and NSPS JJJJ. No deviations reported.
12/14/2016 – 6/30/2017	9/29/17	10/3/17	Semi-Annual	<ul style="list-style-type: none"> Tier 2 sampling conducted in 2013. Calculations indicate NMOC emission rate less than 50 Mg/yr through 2017. Next Tier 2 sampling due 2018. No GCCS required due to Tier 2 testing results. No deviations reported.
6/30/2017 – 12/31/2017	3/28/18	4/3/18	Semi-Annual	<ul style="list-style-type: none"> Tier 2 sampling conducted January 30 – February 2, 2018. Calculations indicate NMOC emission rate less than 50 Mg/yr – 5 year NMOC emissions rate report for 2018-2022 being finalized. No deviations reported.
1/1/2018 – 6/30/2018	10/1/18	10/1/18	Semi-Annual	<ul style="list-style-type: none"> 5-year NMOC emissions rate submitted on April 5, 2018; updated report is being finalized to reflect revised and corrected NMOC calculations.² No deviations reported.

2. “Deviation” means any situation in which an emissions unit fails to meet a permit term or condition. A deviation is not always a violation. A deviation can be determined by observation or through review of data obtained from any testing, monitoring, or recordkeeping established in accordance with 40 CFR §71.6(a)(3)(i) and (a)(3)(ii). For a situation lasting more than 24 hours which constitutes a deviation, each 24-hour period is considered a separate deviation. Included in the meaning of deviation are any of the following:
 - (a) A situation where emissions exceed an emission limitation or standard;
 - (b) A situation where process or emissions control device parameter values indicate that an emission limitation or standard has not been met; or
 - (c) A situation in which observations or data collected demonstrate noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit.
3. The Permittee shall promptly report to the EPA deviations from permit requirements, including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. “Prompt” is defined as follows:
 - (a) Any definition of “prompt” or a specific time frame for reporting deviations provided in an underlying applicable requirement as identified in this permit.
 - (b) Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:
 - (i) For emissions of a HAP or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.

² This updated Tier 2 Sampling Report, which included the NMOC emission rate report, was received by EPA on October 4, 2018.

- (ii) For emissions of any regulated air pollutant, excluding a HAP or a toxic air pollutant that continues for more than 2 hours in excess of permit requirements, the report must be made within 48 hours.
 - (iii) For all other deviations from permit requirements, the report shall be submitted with the semi-annual monitoring report.
- (c) If any of the conditions in (i) or (ii) of paragraph (b) above are met, the Permittee must notify EPA by telephone (1-800-227-6312), facsimile (303-312-6409), or by email to r8airreportenforcement@epa.gov based on the timetables listed above. *[Notification must specify that this notification is a deviation report for a Part 71 permit]*. A written notice, certified consistent with the Submissions section of this permit must be submitted within 10 working days of the occurrence. All deviations reported under this section must also be identified in the 6-month report required under Condition 1 in this section of this permit.

OBSERVATION: In the period covered by this full compliance evaluation, no deviations have been reported to EPA.

VII. General Provisions

A. Annual Fee Payment [40 CFR §71.9]

1. The Permittee shall pay an annual permit fee in accordance with the procedures outlined below.
2. The Permittee shall pay the annual permit fee each year no later than April 1st. The fee shall cover the previous calendar year.

OBSERVATION: Annual fees received for the Tekoi Landfill for the 2016 and 2017 reporting years are displayed in Table 6, below.

Table 6: Annual Fees Received for the Tekoi Landfill

Date Payment Received	Reporting Year	Fee Paid
March 31, 2017	2016	\$1,087.04
April 2, 2018	2017	\$830.12

B. Annual Emissions Inventory [40 CFR §71.9(h)(1) and (2)]

1. The Permittee shall submit an annual emissions report of its actual emissions for both criteria pollutants and regulated HAPs for this source for the preceding calendar year for fee assessment purposes. The annual emissions report shall be certified by a responsible official and shall be submitted each year to the EPA by April 1st.

OBSERVATION: Annual emissions reports received by EPA for the Tekoi Landfill are displayed in Table 7, p. 16.

Table 7: Annual Emissions Reported for the Tekoi Landfill

Pollutant	Actual Emissions (tpy)*	
	2016	2017
NO _x	0	0.9
VOC	10.9	4.5
SO ₂	0	0.2
PM ₁₀	9.2	8.3
Total HAPs	1.4	2.2

- C. Compliance Requirements** [40 CFR §71.6(a)(6), Section 113(a) and 113(e)(1) of the CAA, and 40 CFR §§51.212, 52.12, 52.33, 60.11(g), 61.12]
3. Compliance Certifications [40 CFR §71.6(c)(5)]
- (a) The Permittee shall submit to the EPA a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices annually by April 1st, and shall cover the same 12-month period as the two consecutive semi-annual monitoring reports.
 - (b) The compliance certification shall be certified as to truth, accuracy, and completeness by a responsible official consistent with 40 CFR §71.5(d).
 - (c) The certification shall include the following:
 - (i) Identification of each permit term or condition that is the basis of the certification;
 - (ii) The identification of the method(s) or other means used for determining the compliance status of each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the methods and means required in this permit. If necessary, the Permittee also shall identify any other material information that must be included in the certification to comply with Section 113(c)(2) of the CAA, which prohibits knowingly making a false certification or omitting material information;
 - (iii) The status of compliance with each term and condition of the permit for the period covered by the certification based on the method or means designated in (ii) above. The certification shall identify each deviation and take it into account in the compliance certification;
 - (iv) Such other facts as the EPA may require to determine the compliance status of the source; and
 - (v) Whether compliance with each permit term was continuous or intermittent.

OBSERVATION: Title V Annual Compliance Certifications (TVACCs) submitted since the previous full compliance evaluation are shown in Table 8, p. 17.

Table 8: Facility-Wide Title V Annual Compliance Certifications (TVACCs)

Reporting Period	Report Date	Report Rcvd	Report Type	Notes
3/1/2016 – 12/13/2016	3/31/17	4/3/17	TVACC	<ul style="list-style-type: none">• Facility reported continuous compliance with all permit conditions.• No deviations reported.
12/14/2016 – 12/31/2017	3/28/18	4/3/18	TVACC	<ul style="list-style-type: none">• Facility reported continuous compliance with all permit conditions.• Tier 2 sampling performed January 30 – February 1, 2018.• No deviations reported.

P. Off Permit Changes [40 CFR 71.6(a)(12) and 40 CFR 71.6(a)(3)(ii)]

The Permittee is allowed to make certain changes without a permit revision, provided that the following requirements are met, and that all records required by this section are kept for a period of 5 years:

OBSERVATION: Per Mr. Nyiro, no off-permit changes have taken place in the last five years.

APPENDIX A: Site Overview



Figure 1: Tekoi Landfill Aerial Satellite Imagery

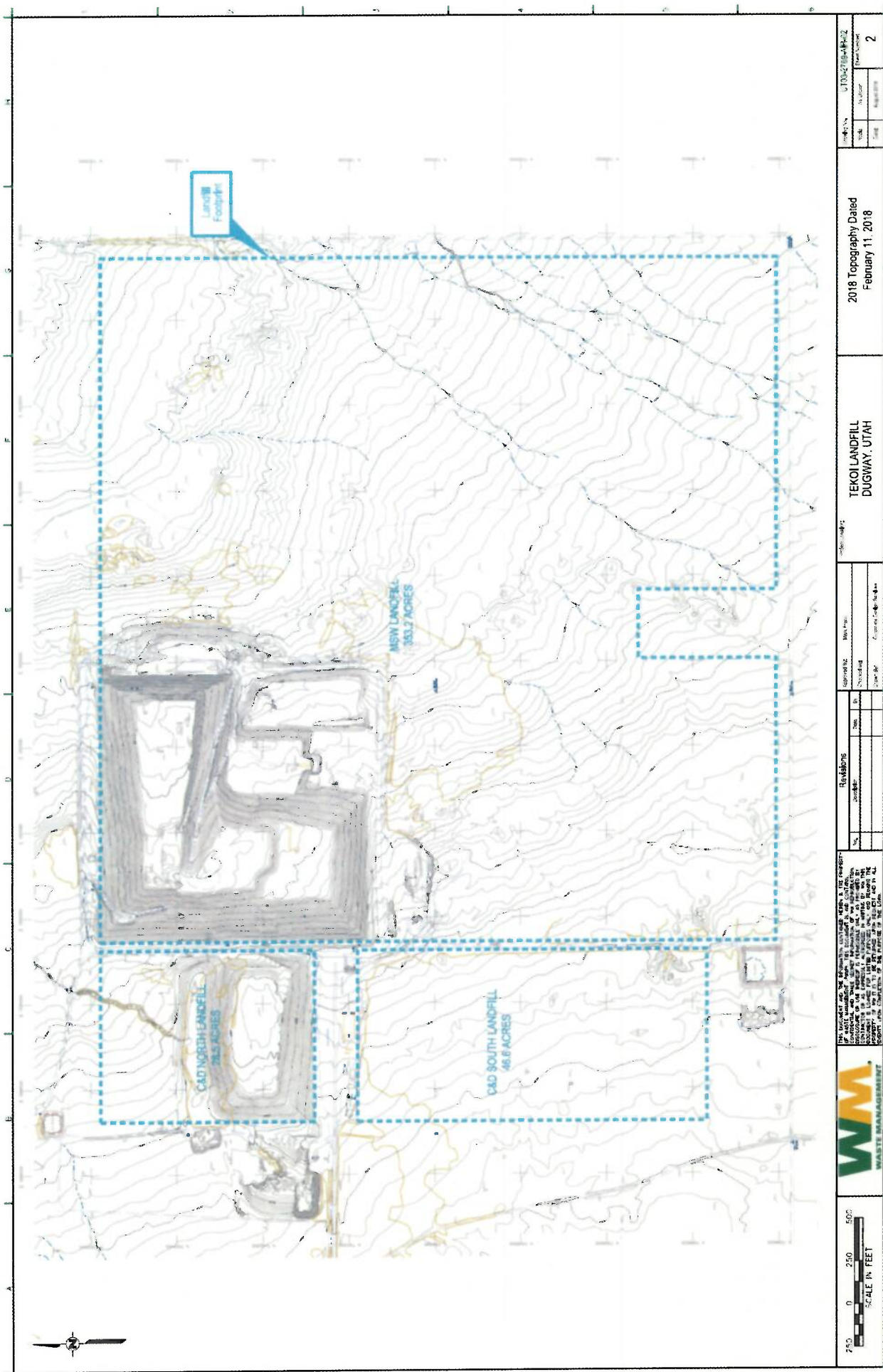


Figure 2: Site Map of Tekoi Landfill February 2018